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WO 03/025148 A2

(54) Title: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

(57) Abstract: The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

XX
PF 23-JUL-2001; 2001WO-US023124.
XX
PR 24-JUL-2000; 2000US-0220116P.
PR 27-JUL-2000; 2000US-0221143P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Zeng Z, Ruben SM, Rosen CA;
XX
DR WPI; 2002-171948/22.
DR N-PSDB; AAD33366.
XX
PT Two novel proteins, TR21 and TR22, which are members of the tumor
PT necrosis factor receptor, useful for the diagnosis and treatment of
PT immune disorders, cancer, cardiovascular disorders.
XX
PS Claim 11; Fig 1; 248pp; English.
XX
CC The present invention relates to novel human tumour necrosis factor (TNF)
CC receptors, TR21 and TR22 and polynucleotides encoding them. Sequences of
CC the invention are useful in the diagnosis, treatment and prevention of
CC cancers (e.g., cancers of the adrenal gland, bone, urogenital or bone
CC marrow, in particular breast and ovarian cancer), immune disorders (e.g.,
CC autoimmune haemolytic anaemia, rheumatoid arthritis, allergies, Addison's
CC disease, ulcerative colitis), cardiovascular disorders (e.g., myocardial
CC ischaemias), wound healing, neurological diseases (e.g., cerebral anoxia,
CC epilepsy) and infectious diseases such as viral, bacterial, fungal and
CC parasitic infections. They are also useful in gene therapy. The present
CC sequence is human TR21 protein
XX
SQ Sequence 271 AA;

Query Match 100.0%; Score 1426; DB 5; Length 271;
Best Local Similarity 100.0%; Pred. No. 1.1e-120;
Matches 271; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MAPRALPGSAVLAAAVFVGGAVSSPLVAPDNGSSRTLHSRTETTPSPSNDTGNGHPEYIA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MAPRALPGSAVLAAAVFVGGAVSSPLVAPDNGSSRTLHSRTETTPSPSNDTGNGHPEYIA 60

Qy         61 YALVPVFFIMGLFGVLICHLLKKKGYRCTTEAEQDIEEEKVEKIELNDSVNENSDTVGQI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 YALVPVFFIMGLFGVLICHLLKKKGYRCTTEAEQDIEEEKVEKIELNDSVNENSDTVGQI 120

Qy        121 VHYIMKNEANADVLKAMVADNSLYDPESPVTPSTPGSPPVSPGPLSPGGTPGKHVCGHHL 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 VHYIMKNEANADVLKAMVADNSLYDPESPVTPSTPGSPPVSPGPLSPGGTPGKHVCGHHL 180

Qy        181 HTVGGVVERDVCHRCRHKRWHFIKPTNKSRESRPRRQGEVTVLSVGRFRVTKVEHKSNQK 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 HTVGGVVERDVCHRCRHKRWHFIKPTNKSRESRPRRQGEVTVLSVGRFRVTKVEHKSNQK 240

Qy        241 ERRSLMSVSGAETVNGEVPATPVKRERSGTE 271
              |||||||||||||||||||||||||||||||
Db        241 ERRSLMSVSGAETVNGEVPATPVKRERSGTE 271
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RESULT 2
ADI21099
ID ADI21099 standard; protein; 271 AA.
XX
AC ADI21099;
XX
DT 15-APR-2004 (first entry)
XX
DE Novel human protein #74.
XX
KW forensic; nutritional source; damaged tissue; diseased tissue;
KW myeloid cell disorder; lymphoid cell disorder;
KW bone cartilage tissue growth; tendon tissue growth;
KW ligament tissue growth; nerve tissue growth; regeneration; wound healing;
KW tissue repair; tissue replacement; burn; incision; ulcer; cancer; human.
XX
OS Homo sapiens.
XX
PN WO2003025148-A2.
XX
PD 27-MAR-2003.
XX
PF 19-SEP-2002; 2002WO-US029964.
XX
PR 19-SEP-2001; 2001US-0323739P.
PR 13-SEP-2002; 2002US-00323739.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Asundi V, Goodrich RW, Ren F, Zhang J, Zhao QA, Wang J;
PI Ghosh M, Xue AJ, Wehrman T, Weng G, Zhou P, Drmanac RT, Wang D;
PI Haley-Vicente D;
XX
DR WPI; 2003-354603/33.
DR N-PSDB; ADI21815.
XX
PT New polynucleotides and secreted proteins, useful for treating myeloid or
PT lymphoid cell disorders, in bone cartilage, tendon, ligament and nerve
PT tissue growth or regeneration, in wound healing, and in tissue repair and
PT replacement.
XX
PS Claim 20; SEQ ID NO 350; 156pp; English.
XX
CC The invention relates to an isolated polynucleotide encoding a
CC polypeptide with biological activity. The polynucleotides and
CC polypeptides are useful in diagnostics, forensics, gene mapping,
CC identification of mutations responsible for genetic disorders and other
CC traits, to assess biodiversity, as nutritional sources or supplements.
CC The polynucleotides may also be used as molecular weight markers,
CC chromosome markers or map related gene positions, or as an antigen to
CC raise anti-DNA antibodies or elicit immune response. The polypeptides are
CC useful for raising antibodies, as markers for tissues in which the
CC corresponding polypeptide is expressed, for re-engineering damaged or
CC diseased tissues, for treating myeloid or lymphoid cell disorders, in
CC bone cartilage, tendon, ligament and/or nerve tissue growth or
CC regeneration, in wound healing, in tissue repair and replacement, in
CC healing of burns, incisions and ulcers, and in treating cancer. The
CC present sequence represents the amino acid sequence of a novel human
CC protein.
XX
SQ Sequence 271 AA;

Query Match 100.0%; Score 1426; DB 7; Length 271;
Best Local Similarity 100.0%; Pred. No. 1.1e-120;
Matches 271; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MAPRALPGSAVLAAAVFVGGAVSSPLVAPDNGSSRTLHSRTETTPSPSNDTGNGHPEYIA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MAPRALPGSAVLAAAVFVGGAVSSPLVAPDNGSSRTLHSRTETTPSPSNDTGNGHPEYIA 60

Qy         61 YALVPVFFIMGLFGVLICHLLKKKGYRCTTEAEQDIEEEKVEKIELNDSVNENSDTVGQI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 YALVPVFFIMGLFGVLICHLLKKKGYRCTTEAEQDIEEEKVEKIELNDSVNENSDTVGQI 120

Qy        121 VHYIMKNEANADVLKAMVADNSLYDPESPVTPSTPGSPPVSPGPLSPGGTPGKHVCGHHL 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 VHYIMKNEANADVLKAMVADNSLYDPESPVTPSTPGSPPVSPGPLSPGGTPGKHVCGHHL 180

Qy        181 HTVGGVVERDVCHRCRHKRWHFIKPTNKSRESRPRRQGEVTVLSVGRFRVTKVEHKSNQK 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 HTVGGVVERDVCHRCRHKRWHFIKPTNKSRESRPRRQGEVTVLSVGRFRVTKVEHKSNQK 240

Qy        241 ERRSLMSVSGAETVNGEVPATPVKRERSGTE 271
              |||||||||||||||||||||||||||||||
Db        241 ERRSLMSVSGAETVNGEVPATPVKRERSGTE 271
```

RESULT 3